

293 USE OF WATER SOLUBLE EXTRACTS FROM ULVA SP. BY PROBIOTICS AND FISH BACTERIAL PATHOGENS

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BACKGROUNDS

The potential of seaweeds as dietary components is considered for a wide range of cultured fish species. In this context, *Ulva* is investigated as a good source of protein, minerals and vitamins. In addition, of probiotics are used to improve fish growth and modulate immune system and intestinal microbiota. To promote probiotics colonization and maintenance in the intestine, prebiotics are included in fish diets. Prebiotics are indigestible substrates used as energy sources for gastrointestinal microbiota, with a positive effect on the nutrition and health status of the host.

In the present work, ability of selected probiotic and fish pathogen strains to use water soluble extracts from *Ulva* as nutrient source has been evaluated.

MATERIALS AND METHODS

Water-soluble extracts from *Ulva* sp. prepared by sonication of dehydrated samples were used to supplement minimum medium (M9). Probiotics and pathogens growth was evaluated based on the optical densities measured with a microplate reader.

RESULTS AND CONCLUSIONS

Probiotics were able to grow in minimum medium using water soluble extracts as nutrient source. On the other hand, *P. damsela* subsp. *piscicida* and *V. harvey* strains were also able to grow with *Ulva* extracts as nutrient source. However, incubation time to reach maximum growth was longer.

Although *Ulva* extract may support growth of both probiotics and pathogen bacteria, faster growth of probiotics may help for the establishment of probiotic populations in the intestinal environment. In addition, beneficial effects on growth performance, gut microbiota, immunity and disease resistance of *Ulva* for *Solea senegalensis* are being studied.

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